

PIEZOELECTRIC DEVICE AND MANUFACTURE THEREOF

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Abstract of JP11168248

PROBLEM TO BE SOLVED: To provide a piezoelectric device which is sintered at a low temperature and high in piezoelectric characteristics and where electrodes of Ag-Pd alloy or the like can be used.
SOLUTION: The piezoelectric body of a piezoelectric element is formed through a manner where at maximum 5 mol.% lead oxide, silver oxide, and bismuth oxide or a mixture of them is mixed as additive into material powder whose composition is represented by a formula, $a\text{PbNi}_{1/3}\text{Nb}_{2/3}\text{O}_3 - b\text{PbTiO}_3 - c\text{PbZrO}_3$ (where $0.4 < a < 0.6$, $0.25 < b < 0.45$, $0.05 < c < 0.25$, and $a+b+c=1$) for the formation of piezoelectric material powder, and the piezoelectric material powder is sintered into a piezoelectric body where the additive component is removed.

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